



F.B. Dehn & Co. Patentanwälte  
2280 HV Rijswijk (ZH)  
☎ +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

Patentamt

Zweigstelle  
in Den Haag  
Recherchen-  
abteilung

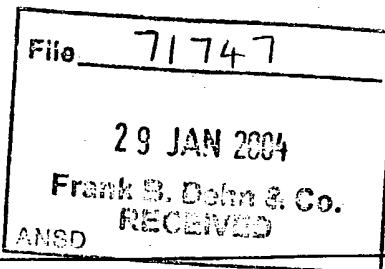
Patent Office

Branch at  
The Hague  
Search  
division

des brevets

Département à  
La Haye  
Division de la  
recherche

Dzieglewska, Hanna Eva  
Frank B. Dehn & Co.,  
European Patent Attorneys,  
179 Queen Victoria Street  
London EC4V 4EL  
GRANDE BRETAGNE



Datum/Date

28.01.04

Zeichen/Ref./Réf. <del>21</del> . 17.71747	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°. 98922527.1-1222-AU9800396
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH	

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





Claim(s) not searched:  
10-14

Reason for the limitation of the search:

Present claims 10 and 11 relate to a computer programme defined by reference to a desirable characteristic or property, namely being capable of controlling a method of detecting a difference of one or more nucleotides between a nucleic acid molecule to be tested and a reference nucleic acid molecule.

Present claims 12-14 relate to an apparatus comprising means which are defined by reference to a desirable characteristic or property, namely means of subjecting the test nucleic acid molecule to base specific cleavage to generate oligonucleotide fragments.

The application provides no support within the meaning of Article 84 EPC and/or disclosure within the meaning of Article 83 EPC for such computer programme and apparatus. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search of these claims is impossible. Independent of the above reasoning, the claims also lack clarity (Article 84 EPC). An attempt is made to define the computer programme and the apparatus by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search of these claims impossible.

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 92 2527

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-01-2004

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9703210	A	30-01-1997	AT 220725 T	15-08-2002
			AU 708821 B2	12-08-1999
			AU 4399596 A	10-02-1997
			CA 2226542 A1	30-01-1997
			DE 69527444 D1	22-08-2002
			DE 69527444 T2	20-02-2003
			DK 843735 T3	11-11-2002
			EP 0843735 A1	27-05-1998
			ES 2176358 T3	01-12-2002
			WO 9703210 A1	30-01-1997
			JP 2000509241 T	25-07-2000
			NO 980105 A	10-03-1998
			NZ 298494 A	29-09-1999
			PT 843735 T	29-11-2002
			US 5952176 A	14-09-1999

---



European Patent  
Office

**SUPPLEMENTARY  
PARTIAL EUROPEAN SEARCH REPORT**

Application Number

which under Rule 45 of the European Patent Convention EP 98 92 2527  
shall be considered, for the purposes of subsequent  
proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	HAHNER ET AL: "MATRIX-ASSISTED LASER DESORPTION/IONIZATION MASS SPECTROMETRY (MALDI) OF ENDONUCLEASE DIGESTS OF RNA" NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 25, no. 10, 15 May 1997 (1997-05-15), pages 1957-1964, XP002128446 ISSN: 0305-1048 * the whole document *	1-9, 15-21	G01N33/483 C12Q1/527 C12Q1/68
Y	WO 97 03210 A (FORFAS TRADING AS BIORESEARCH ; UNIV CORK (IE); MCCARTHY THOMAS VAL) 30 January 1997 (1997-01-30) * the whole document *	1-9, 15-21	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			C12Q
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
<b>INCOMPLETE SEARCH</b>			
The Search Division considers that the present application, or some or all of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for the following claims:			
Claims searched completely :			
Claims searched incompletely :			
Claims not searched :			
Reason for the limitation of the search: see sheet C			
Place of search THE HAGUE		Date of completion of the search 20 January 2004	Examiner Hagenmaier, S
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

5

EPO FORM 1503 03.82 (P04C20)



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.CI.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	LIU Y H ET AL: "Rapid screening of genetic polymorphisms using buccal cell DNA with detection by matrix-assisted laser desorption/ionization mass spectrometry." RAPID COMMUNICATIONS IN MASS SPECTROMETRY: RCM. ENGLAND 1995, vol. 9, no. 9, 1995, pages 735-743, XP008019618 ISSN: 0951-4198 * the whole document *	1-9, 15-21	
Y	TARANENKO N I ET AL: "Laser desorption mass spectrometry for point mutation detection." GENETIC ANALYSIS: BIOMOLECULAR ENGINEERING. NETHERLANDS OCT 1996, vol. 13, no. 4, October 1996 (1996-10), pages 87-94, XP004070180 * the whole document *	1-9, 15-21	TECHNICAL FIELDS SEARCHED (Int.CI.6)
Y	NORDHOFF E ET AL: "MASS SPECTROMETRY OF NUCLEIC ACIDS" MASS SPECTROMETRY REVIEWS, JOHN WILEY AND SONS, NEW YORK, NY, US, vol. 15, no. 2, March 1996 (1996-03), pages 67-138, XP001120450 ISSN: 0022-7037 * the whole document *	1-9, 15-21	
	---		
	--- -/--		



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	TALBO G ET AL: "ASPECTS OF THE SEQUENCING OF CARBOHYDRATES AND OLIGONUCLEOTIDES BY MATRIX-ASSISTED LASER DESORPTION/IONIZATION POST-SOURCE DECAY" RAPID COMMUNICATIONS IN MASS SPECTROMETRY, HEYDEN, LONDON, GB, vol. 10, no. 1, 1996, pages 100-103, XP002047881 ISSN: 0951-4198 * the whole document *	8,9,16, 20,21	
A	KAUFMANN R ET AL: "Post-source decay and delayed extraction in matrix-assisted laser desorption/ionization-reflectron time-of-flight mass spectrometry. Are there trade-offs?" RAPID COMMUNICATIONS IN MASS SPECTROMETRY: RCM. ENGLAND 1996, vol. 10, no. 10, 1996, pages 1199-1208, XP008019804 ISSN: 0951-4198 * the whole document *		TECHNICAL FIELDS SEARCHED (Int.Cl.6)



P.B.5818 - Patentlaan 2  
2280 HV Rijswijk (ZH)  
T +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

Europäisches  
Patentamt

Zweigstelle  
in Den Haag  
Recherchen-  
abteilung

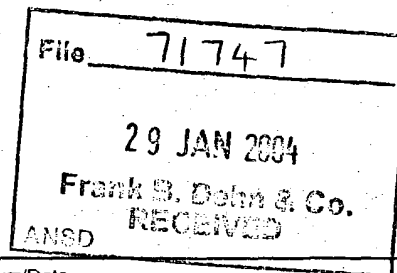
European  
Patent Office

Branch at  
The Hague  
Search  
division

Office européen  
des brevets

Département à  
La Haye  
Division de la  
recherche

Dzieglewska, Hanna Eva  
Frank B. Dehn & Co.,  
European Patent Attorneys,  
179 Queen Victoria Street  
London EC4V 4EL  
GRANDE BRETAGNE



Datum/Date

28.01.04

Zeichen/Ref./Réf. <b>84.17.71747</b>	Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n°. <b>98922527.1-1222-AU9800396</b>
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire <b>THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH</b>	

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





European Patent  
Office

**SUPPLEMENTARY  
PARTIAL EUROPEAN SEARCH REPORT**

Application Number

which under Rule 45 of the European Patent Convention EP 98 92 2527  
shall be considered, for the purposes of subsequent  
proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	HAHNER ET AL: "MATRIX-ASSISTED LASER DESORPTION/IONIZATION MASS SPECTROMETRY (MALDI) OF ENDONUCLEASE DIGESTS OF RNA" NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 25, no. 10, 15 May 1997 (1997-05-15), pages 1957-1964, XP002128446 ISSN: 0305-1048 * the whole document *	1-9, 15-21	G01N33/483 C12Q1/527 C12Q1/68
Y	WO 97 03210 A (FORFAS TRADING AS BIORESEARCH ;UNIV CORK (IE); MCCARTHY THOMAS VAL) 30 January 1997 (1997-01-30) * the whole document *	1-9, 15-21	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			C12Q
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
<b>INCOMPLETE SEARCH</b>			
<p>The Search Division considers that the present application, or some or all of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for the following claims:</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search:</p> <p>see sheet C</p>			
Place of search		Date of completion of the search	Examiner
THE HAGUE		20 January 2004	Hagenmaier, S
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

5  
EPO FORM 1503 03.02 (P04C20)





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	LIU Y H ET AL: "Rapid screening of genetic polymorphisms using buccal cell DNA with detection by matrix-assisted laser desorption/ionization mass spectrometry." RAPID COMMUNICATIONS IN MASS SPECTROMETRY: RCM. ENGLAND 1995, vol. 9, no. 9, 1995, pages 735-743, XP008019618 ISSN: 0951-4198 * the whole document *	1-9, 15-21	
Y	TARANENKO N I ET AL: "Laser desorption mass spectrometry for point mutation detection." GENETIC ANALYSIS: BIOMOLECULAR ENGINEERING. NETHERLANDS OCT 1996, vol. 13, no. 4, October 1996 (1996-10), pages 87-94, XP004070180 * the whole document *	1-9, 15-21	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
Y	NORDHOFF E ET AL: "MASS SPECTROMETRY OF NUCLEIC ACIDS" MASS SPECTROMETRY REVIEWS, JOHN WILEY AND SONS, NEW YORK, NY, US, vol. 15, no. 2, March 1996 (1996-03), pages 67-138, XP001120450 ISSN: 0022-7037 * the whole document *	1-9, 15-21	



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.CI.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	TALBO G ET AL: "ASPECTS OF THE SEQUENCING OF CARBOHYDRATES AND OLIGONUCLEOTIDES BY MATRIX-ASSISTED LASER DESORPTION/IONIZATION POST-SOURCE DECAY" RAPID COMMUNICATIONS IN MASS SPECTROMETRY, HEYDEN, LONDON, GB, vol. 10, no. 1, 1996, pages 100-103, XP002047881 ISSN: 0951-4198 * the whole document *	8,9,16, 20,21	
A	KAUFMANN R ET AL: "Post-source decay and delayed extraction in matrix-assisted laser desorption/ionization-reflectron time-of-flight mass spectrometry. Are there trade-offs?" RAPID COMMUNICATIONS IN MASS SPECTROMETRY: RCM. ENGLAND 1996, vol. 10, no. 10, 1996, pages 1199-1208, XP008019804 ISSN: 0951-4198 * the whole document *		TECHNICAL FIELDS SEARCHED (Int.CI.6)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 92 2527

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-01-2004

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9703210 A	30-01-1997	AT 220725 T	15-08-2002
		AU 708821 B2	12-08-1999
		AU 4399596 A	10-02-1997
		CA 2226542 A1	30-01-1997
		DE 69527444 D1	22-08-2002
		DE 69527444 T2	20-02-2003
		DK 843735 T3	11-11-2002
		EP 0843735 A1	27-05-1998
		ES 2176358 T3	01-12-2002
		WO 9703210 A1	30-01-1997
		JP 2000509241 T	25-07-2000
		NO 980105 A	10-03-1998
		NZ 298494 A	29-09-1999
		PT 843735 T	29-11-2002
		US 5952176 A	14-09-1999



Claim(s) not searched:  
10-14

Reason for the limitation of the search:

Present claims 10 and 11 relate to a computer programme defined by reference to a desirable characteristic or property, namely being capable of controlling a method of detecting a difference of one or more nucleotides between a nucleic acid molecule to be tested and a reference nucleic acid molecule.

Present claims 12-14 relate to an apparatus comprising means which are defined by reference to a desirable characteristic or property, namely means of subjecting the test nucleic acid molecule to base specific cleavage to generate oligonucleotide fragments.

The application provides no support within the meaning of Article 84 EPC and/or disclosure within the meaning of Article 83 EPC for such computer programme and apparatus. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search of these claims is impossible. Independent of the above reasoning, the claims also lack clarity (Article 84 EPC). An attempt is made to define the computer programme and the apparatus by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search of these claims impossible.